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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,433	11/03/2003	Jung-Keun Ahn	P56975	1520
7590 Robert E. Bushnell Suite 300 1522 K Street, N.W. Washington, DC 20005-1202	05/01/2007		EXAMINER LONEY, DONALD J	
			ART UNIT 1772	PAPER NUMBER
			MAIL DATE 05/01/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/698,433	AHN ET AL.	
	<b>Examiner</b> Donald Loney	<b>Art Unit</b> 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 12 February 2007.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-9, 15, 21, 22 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 9 and 15 is/are allowed.
- 6) Claim(s) 1-7, 21, 22 and 24-27 is/are rejected.
- 7) Claim(s) 8 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ .  | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-8, 21, 22 and 24-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 9 it is unclear as to what is meant by the term "closed structures".

It appears from the specification that the applicant is attempting to refer to closed "hollow" or cellular structures. Claim 15 contains this "hollow" limitation as therefore clear as to what is meant there from. The examiner deems this limitation as also being a closed solid structure and will apply art below to the two different interpretations of the claims as explained (i.e. both hollow and solid structures).

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5, 6, 21, 22, 24, 25 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka (64000080).

Tanaka teaches a plasma display as recited wherein dummy ribs are formed outside the display area. Refer to figures 1 and 4 showing dummy ribs 7, 8 and 9. The ribs are in a straight lie and can be considered a closed structure since this could mean the ribs are solid as discussed above. It is noted the applicant has deleted the recitation as to the reinforcing ribs being different than the non-reinforcing ribs. With regards to claims 5, 6, 24 and 25, the ribs are straight and parallel to each other, two ribs 7 and 9 can be considered the outer and inner ribs per claim 6 and the ribs go along the length of the panel and one set has a width equal to the closed structure as shown in figure 4. The applicants' recitation that the dummy ribs be able to withstand sandblasting, in claims 21 and 22, does not structurally distinguish the claims from the prior art, which teaches dummy ribs, since this is only a matter of degree. One could lightly sandblast which would not affect the dummy ribs. As to at least one rib being continuous, it appears that from the figure that when looking at one rib it is continuous. With regards to claim 27, the ribs being along the edge of the panel is only relative to how one looks at the panel and does not structurally distinguish from the prior art.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-7, 21, 22 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Yoo (6090464).

Tanaka teaches a plasma display as recited wherein dummy ribs are formed outside the display area. Refer to figures 1 and 4 showing dummy ribs 7, 8 and 9. Tanaka does fail to teach the ribs as being a hollow closed cell structure as interpreted above for the phrase "closed structures".

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Yoo teaches that a closed ring polygonal or circular structure 23 can be used to reinforce and space two substrates in a display device. Refer to figure 2 along with the Abstract and column 2, line 24 through column 3, line 53.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to the primary reference to use a closed structure (i.e. hollow) With regards to claim 2, the cellular structures as shown by Yoo are connected. With regards to claims 3-7 and 24-27 it would have been obvious to use the varying different structures, or particular numbers of sets of ribs, since this would only involve a change in shape or size of the ribs, which generally is considered within ordinary skill in the art. See MPEP 2144.04IV. The applicants' recitation that the dummy ribs be able to withstand sandblasting, in claims 21 and 22, does not structurally distinguish the claims from the prior art, which teaches dummy ribs, since this is only a matter of degree. One could lightly sandblast which would not affect the dummy ribs.

9. Claims 1, 2, 3, 21, 22, 24 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 02/084689 previously cited by the applicant.

WO 02/084689 discloses a plasma display panel containing a plurality of dummy ribs formed from mask 30. The reinforcing ribs 4b being a straight line closed cell structure. Refer to figures 4 and 8-11 in U.S. Patent No. 6855026. The examiner refers to Patent since it is an English language equivalent of the WO document which has an earlier publication date and is prior art under 35 USC 102(b). With regards to claim 2, the pattern 4b is a connected pattern of a cellular lattice. With regards to claim 3, the cells are polygonal as shown. The applicants' recitation that the dummy ribs be able to

withstand sandblasting, in claims 21 and 22, does not structurally distinguish the claims from the prior art, which teaches dummy ribs, since this is only a matter of degree. With regards to claims 24 and 27 the ribs appear parallel and along an edge of the panel, taken onto account the edge of the panel is only relative to how one looks at the panel and does not structurally distinguish from the prior art.

10. Claims 4-7, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/084689.

The primary reference teaches the invention substantially as recited except for the reinforcing ribs being of a circular structure per claim 4. See the 35 U.S.C. 102 rejection above.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to the primary reference to use a closed circular structure to reinforce the spacing of the substrates, as taught by WO 02/084689, motivated by the fact other structures are shown in the figures (see figure 8 showing a ring structure 5b) and since this would only involve a change in shape or size of the ribs, which generally is considered within ordinary skill in the art. See MPEP 2144.04IV. With regards to claims 5-8, 25 and 26 it would have been obvious to use the varying different structures, or particular numbers of sets of ribs, since this would only involve a change in shape or size of the ribs, which generally is considered within ordinary skill in the art. See MPEP 2144.04IV.

***Response to Arguments***

11. Applicant's arguments filed February 12, 2007 have been fully considered but they are not persuasive. The applicant argues that there is no motivation as to why the two-dimensional structure, of Yoo, results in a one-dimensional series of closed structures. This is not found in commensurate in scope with the claim since the applicant has not recited any dimensions in the claims. The applicant also argues that the substitution of Yoo in Tanaka would not form a straight-line series of closed loops. The applicant again has not recited any closed loops in the claims and the closed structures can be considered solid as discussed above. The examiner has attempted to apply art above in order to cover the two different scopes of the way the claims can be interpreted as explained above (i.e. hollow or solid closed structures).

***Allowable Subject Matter***

12. Claims 9 and 15 are allowed for the reasons previously indicated.
13. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims as previously indicated.

***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Loney whose telephone number is (571) 272-1493. The examiner can normally be reached on Mon, Tues, Thurs and Fri. 8AM-4PM, flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

D. Loney

Donald Loney  
Primary Examiner  
Art Unit 1772

DJL:D.Loney  
04/26/07